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EXAMINER

FREEMAN, JOHN D

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GERD HUGO

Appeal 2015-006512
Application 11/791,825
Technology Center 1700

Before JEFFREY T. SMITH, BRIAN D. RANGE, and
JENNIFER R. GUPTA, *Administrative Patent Judges*.

GUPTA, *Administrative Patent Judge*.

DECISION ON APPEAL¹

Appellant² appeals under 35 U.S.C. § 134(a) from the Examiner's decision³ finally rejecting claims 1, 3, 4, 12–25, and 27–31. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ In this decision, we refer to the Final Office Action mailed May 8, 2014 (“Final Act.”), the Appeal Brief filed November 28, 2014 (“Br.”), and the Examiner's Answer mailed April 23, 2015 (“Ans.”).

² Appellant identifies the real party in interest as Construction Research & Technology GmbH. Br. 3.

³ Final Act. 2–13.

The subject matter on appeal relates to a dark, flat element having low heat conductivity, reduced density, and low solar absorption. Spec. ¶ 1.

Claim 1, reproduced below, is illustrative of the claims on appeal.

1. A film with low heat conductivity, reduced density and low solar absorption, the film comprising:

at least one combination of a plastic support material and components incorporated into the plastic support material, the components incorporated into the plastic support material consisting of:

a) and/or b);

and at least one of c), d), and e); and

optionally f), wherein:

a) comprises inorganic and/or organic light fillers, which reduce the density and heat conductivity of the plastic support material;

b) comprises gases selected from the group consisting of air, nitrogen, carbon dioxide, and noble gases, which form cavities in the plastic support material and reduce the density and heat conductivity of the plastic support material;

c) comprises dyes, which reflect with spectral selectivity in the wavelength range of visible light from 400 to 700 nm and have an average transparency of greater than 50% in the wavelength range of the near infrared from 700 to 1,000 nm;

d) comprises first pigments, which reflect with spectral selectivity in the wavelength range of visible light from 400 to 700 nm and have an average transparency of greater than 50% in the wavelength range from 700 to 1,000 nm;

e) comprises second pigments, which reflect with spectral selectivity in the wavelength range of visible light from 400 to 700 nm and have an average reflection of greater than 50% in the wavelength range of the near infrared from 700 to 1,000 nm; and

f) comprises inorganic and/or organic nanomaterials, which can be surface-treated or surface coated, and

wherein the at least one combination has the following properties:

- i) an average reflection in the wavelength range of visible light from 400 to 700 nm less than 50%;
- ii) an average reflection in the wavelength range of near infrared from 700 to 1,000 nm greater than 50%;
- iii) a heat conductivity less than 0.4 (W/m K); and
- iv) a bulk density that lies below 1.4 g/cm³.

Br. (Claims Appendix) 15–16.

REJECTIONS ON APPEAL⁴

1. Claims 4, 21, 22, 25, and 27–29 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite;
2. Claims 1, 3, 4, 15–25, 27–29, and 31 stand rejected under 35 U.S.C. § 103(a) as obvious over Hugo (US 2004/0018360 A1, published Jan. 29, 2004) (hereinafter “Hugo”);
3. Claims 12–14 stand rejected under 35 U.S.C. § 103(a) as obvious over Hugo in view of Torobin (US 4,303,736, issued Dec. 1, 1981) (hereinafter “Torobin”);

⁴ The Final Office Action mailed May 8, 2014, includes an objection to the Appellant’s amendment to the title of the application. Although Appellant presents arguments regarding the objection in their Appeal Brief (Br. 7–8), as the Examiner points out (Ans. 10), the objection is not appealable to the Patent Trial and Appeal Board. Manual of Patent Examining Procedure (MPEP) § 706.01 ((9th ed., rev. July 2015).

The rejection of claims 1, 3, 4, 12–25, and 27–31 under 35 U.S.C. § 112, first paragraph, on page 3 of the Final Office Action was withdrawn in the Examiner’s Answer (Ans. 10), and thus is not before us for consideration.

4. Claim 30 stands rejected under 35 U.S.C. § 103(a) as obvious over Hugo in view of Krauthäuser et al. (US 5,962,143, issued Oct. 5, 1999) (hereinafter “Krauthäuser”);
5. Claims 1, 3, 4, 12–25, 27–29, and 31 stand rejected under 35 U.S.C. § 103(a) as obvious over Hugo in view of Nagashima et al. (JP 11-323197, published Nov. 26, 1999) (hereinafter “Nagashima”) or Takahashi et al. (JP 2000-126678, published May 9, 2000) (hereinafter “Takahashi”); and
6. Claim 30 stands rejected under 35 U.S.C. § 103(a) as obvious over Hugo in view of Nagashima or Takahashi, and further in view of Krauthäuser.

DISCUSSION

Rejection 1

The Examiner rejects claims 4, 21, 22, 25, and 27–29 under 35 U.S.C. § 112, second paragraph, as being indefinite.

Appellant makes no substantive argument regarding the rejection. Rather, Appellant defers responding to the § 112, second paragraph rejection until review of the arguments presented in the Appeal Brief. Br. 9. Because the Board does not hold rejections in abeyance, we treat Appellant’s failure to provide substantive arguments against the § 112, second paragraph rejection as a waiver thereof. *See* Manual of Patent Examining Procedure (MPEP) § 1205.02 (9th ed., rev. July 2015) (“If a ground of rejection stated by the examiner is not addressed in the appellant’s brief, that ground of rejection will be summarily sustained by the Board.”); *see also In re Berger*, 279 F.3d 975, 984 (Fed. Cir. 2002) (affirming the Board’s decision to

sustain an uncontested rejection of claims under 35 U.S.C. 112, second paragraph and finding the appellant had waived his right to contest the indefiniteness rejection by not presenting arguments as to error in the rejection on appeal to the Board). Thus, we summarily sustain the rejection.

Rejections 2–6

Appellant argues the claims as a group with respect to the second and fifth grounds of rejection and do not separately contest the separate rejection of certain dependent claims. *See* Br. 9–13. We select claim 1 as representative of the rejected claims, and the remaining claims on appeal will stand or fall with claim 1. (*See* 37 C.F.R. § 41.37 (c)(1)(iv)).

After consideration of each of Appellant’s contentions, the applied prior art, and Appellant’s claims, we determine that Appellant’s arguments are insufficient to identify reversible error in the Examiner’s obviousness rejections. *In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011). Accordingly, we sustain the Examiner’s obviousness rejection for substantially the findings and reasons set forth by the Examiner in the Final Office Action and Answer. *See generally* Final Act. 4–7 and Ans. 10–18. We add the following.

Appellant contends that their claims are directed to a film and not a substrate (Br. 10), and argue that Hugo fails to disclose a film having a PVC and/or polyacrylate plastic support material and a component a) incorporated into the PVC and/or polyacrylate support material (Br. 11).

Appellant’s argument is not persuasive of reversible error in the Examiner’s rejection. The film of claim 1 comprises a plastic support material and components, such as inorganic and/or organic light fillers, which reduce the density and heat conductivity of the plastic support material, incorporated

into the plastic support material. *See* claim 1. The plastic support material of claim 1 is not limited to a PVC and/or polyacrylate plastic support material. Rather, the plastic support material can be a polyamide, a polyolefin, a polymethylmethacrylate (PMMA), or a polyurethane. *See* claim 3. The light fillers, according to Appellant's Specification, may be hollow microspheres from a ceramic, glass or plastic material. Spec. 9:6–10. Hugo discloses a flat element comprising a) substrate and b) a coating of the substrate comprising a binder. Hugo ¶¶ 13–14. Hugo discloses that the binder for its coating may be made of plastics such as methacrylates, substituted polyolefins, polyamides, and polyurethanes. *See id.* ¶¶ 27–28. Example 13 in Hugo discloses a coating made of a polyurethane binder (APU1014 binder and U330 binder made by Alberdingk) with Luxsil hollow (glass) microbeads made by Presperse, Inc. *Id.* ¶ 127. Hugo's coating is applied wet to the substrate and then dried, and thus would form a film. *Id.* Thus, Appellant has not adequately refuted the Examiner's position that Hugo's coating is a "film" comprising a combination of a plastic support material and inorganic and/or organic light fillers incorporated into the plastic support material as recited in claim 1 (*see* Final Act. 5; *see also* Ans. 10, 13).

In the second stated ground of rejection, the Examiner rejected claim 1 under 35 U.S.C. § 103(a) as obvious over Hugo. Appellant argues that Hugo fails to disclose that its substrate, the coating on its substrate, or a combination of the substrate and the coating has the combination of claimed properties i)–iv), recited in claim 1. Br. 11.

Appellant's argument is not persuasive of reversible error in the Examiner's rejection. Hugo explicitly discloses that its coating can include

first pigments having a reflection in the visible light range from 380 to 720 nm of less than 50%, and having a reflection in the near-infrared range from 720 to 1500 nm exceeding 50% (Hugo ¶¶ 13, 14, 22, 24), meeting property i) and ii) recited in claim 1. The Examiner admits that Hugo does not explicitly disclose that its substrate and/or coating have the heat conductivity and bulk density recited in claim 1 (Final Act. 5). The Examiner, however, finds that Example 13 of Hugo discloses a coating that appears to encompass the same materials as in claim 1, and thus, reasonably determines that Hugo's coating would have been expected to have the same heat conductivity and bulk density as recited in claim 1 (*see* Final Act. 12; Ans. 15). *See In re Best*, 562 F.2d 1252, 1255 (CCPA 1977) (where the Examiner establishes a reasonable assertion of inherency and thereby evinces that the products claimed by the applicant and disclosed in the prior art appear to be the same, the burden is properly shifted to the applicant to show that they are not). Appellant merely lists the properties recited in claim 1, and asserts that they are not disclosed in Hugo, but Appellant does not contest the Examiner's finding that Hugo uses the same materials for the coating as disclosed by Appellant's in their Specification (*see* Br. 11–12). Because Gerd Hugo is the sole inventor of both the present application and Hugo, Appellant is in the best position to demonstrate a patentable distinction between Hugo's coating and the film of claim 1. On the record before us, Appellant has not presented sufficient evidence demonstrating that Hugo's coating (*e.g.*, in Example 13) would not have the required heat conductivity and bulk density recited in claim 1. Accordingly, we sustain the Examiner's second stated ground of rejection.

In the fifth stated ground of rejection, the Examiner rejected claim 1 under 35 U.S.C. § 103(a) as obvious over Hugo in view of Nagashima and Takahashi. Final Act. 8–10. Appellant does not identify a reversible error in the Examiner’s findings regarding Nagashima and Takahashi or Examiner’s reasoning in support of the alternative rejection of claim 1 (Br. 12). *See Jung*, 637 F.3d at 1365. Accordingly, we also sustain the Examiner’s fifth stated ground of rejection.

DECISION

For the above reasons, the rejections of claims 1, 3–4, 12–25, and 27–31 are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED